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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/499,060 02/04/00 GARNIER

C 98GR22045417

EXAMINER

MM91/0314

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ART UNIT CONTINUATION PAPER NUMBER

DATE MAILED: 2816

03/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

**Office Action Summary**

Application No.

09/499,060

Applicant(s)

GARNIER ET AL.

Examiner

Terry D. Cunningham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are objected to by the Examiner.
- 11) ☒ The proposed drawing correction filed on 04 February 2000 is: a) ☒ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13, 19, 23, 27, 34, 38 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 13, there is no support found in the specification for the “capacitance” being “a gate capacitance of a MOS transistor”. Further, there are no connections recited for the “MOS transistor” nor is it understood what the relevance of such is.

Claims 19, 27, 34 and 39 are rejected for the reasons discussed with claim 13.

In claim 23, there is no support found in the specification for the “third resistance”.

Claims 38 and 39 attempt to further limit a method claim by adding structural limitations. Thus, these claims are seen to be ambiguous (See M.P.E.P. § 2173.05(o) II).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9, 10, 13-16, 19-24, 27-31, 34-37, 39 and 40 are rejected under 35 U.S.C. §102(b) as being anticipated by Caron. Caron discloses, in Fig. 4, a ramp generator comprising: “a capacitance (78)”; “a charging circuit (remainder of circuit)” having “a current generator (106

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and 108)” and a “circuit (80, 110 and 102)”, all connected and operating similarly as recited by Applicant.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 12, 17, 18, 25, 26, 32, 33 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caron. In the above discussed circuit to Caron, there is no specific discussion of MOS transistors. However, it is notoriously well known that bipolar transistors and MOS transistors are art-recognized equivalents. Additionally, it is notoriously well known that MOS transistors have reduced leakage current. Therefore, it would have been obvious for one skilled in the art to use MOS transistors in place of the bipolar transistors of Caron due to the doctrine of equivalents and to obtain reduced leakage current.

Claims 9-40 are also rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's prior art Fig. 1 in view of Tanigawa. Applicant's prior art Fig. 1 discloses a ramp generator having a broad current source Ig1 with no expressed teachings of the structure thereof. The reference to Tanigawa discloses in Fig. 4 a specific current sink comprising a “current mirror” which has the advantage of gain control. It is notoriously well known that to modify a current sink circuit, as seen in Fig. 4 of Tanigawa, to a current source circuit, such requires changing the conductivity types of the transistors and the polarities of the power supply.

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Therefore, it would have been obvious for one skilled in the art to modify the circuit of Fig. 4 of Tanigawa to be a current source circuit as is notoriously well known in the art. Further, it would have been obvious for one skilled in the art to use the specific current source of Tanigawa, modified as discussed above, for the broad current source Ig1 of Applicant's prior art Fig. 1 for the expected advantage of obtaining a constant current with gain control.

With respect to claims 11, 12, 17, 18, 25, 26, 32, 33 and 38, it would have been obvious for one skilled in the art to use MOS transistors in place of Q1 and Q2 of Tanigawa for similar reasons as discussed above with Caron.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terry Cunningham whose telephone number is (703)308-4872. The examiner can normally be reached on Monday-Thursday from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached on (703)308-4876. The fax phone number for this Group is (703)308-7722. Please note, any faxed paper clearly stating **DRAFT** or **PROPOSED AMENDMENT** at the top will be forwarded directly to the Examiner. All others will be treated as a formal response and acted upon accordingly.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)308-0956.

**TC**  
**March 10, 2001**

**Terry D. Cunningham**  
**Primary Examiner**  
**Art Unit 2816**